

AMENDMENTS TO THE SPECIFICATION:

On page 1 immediately following the title, please insert a heading as follows:

BACKGROUND OF THE INVENTION

The heading on page 1, line 4 has been changed as follows:

Description: Field of the Invention

The paragraphs beginning on page 1, line 6 have been changed as follows:

The invention relates to a method for separating letters in which irregularly spaced and disordered piles of letters that are being transported on a conveyor belt are rendered into a continuous stream of letters that are largely not lying on top of each other and that are distributed virtually homogeneously over the conveyor belt. Moreover, the invention ~~comprises~~ relates to a device that is suitable for carrying out the method.

Related Technology

An automated separation and sorting line usually ~~comprises~~ includes a conveyor belt onto which ~~the~~ boxes or sacks that are delivered at irregular intervals are emptied, as a result of which irregularly spaced and disordered piles of letters are formed on the conveyor belt.

The letters arranged on the conveyor belt in such a way are then normally fed to one or more successive ~~separation means~~ separators with the objective of rendering the above-mentioned arrangement of the letters ~~consisting~~ made up of disordered piles into an arrangement that ~~consists~~ is made up of letters that are largely not lying on top of each other and that are situated virtually homogeneously on the conveyor belt, thus corresponding to a continuous stream of letters that are largely not lying on top of each other and that are distributed virtually homogeneously on the conveyor belt.

An arrangement of separation means a separator for separating letters is described in U.S. Pat. No. 2,905,309, especially in Figure 1 of said publication thereof. In the disclosed arrangement, the letters initially reach a first conveyor belt via an inclined plane, whereby said the conveyor belt conveys the letters to a second conveyor belt via a swing tray that exerts an influence on the regulation of the conveyor belt. This second conveyor belt feeds the letters to another separation means separator that consists of includes a rotating drum with protruding thin strips or “fingers” that pull or push the letters individually off the conveyor belt and into a shaft. The drum is installed above the conveyor belt crosswise to the conveying direction in such a way that the strips can touch the conveyor belt and the drum in the described device rotates in such a way that the strips move in the conveying direction whenever they are below the axis of rotation.

The described arrangement and especially the transport via the swing tray that influences the regulation of the conveyor belt is carried out with the same objective as that of the method according to the invention, but [[it]] is very complex. Moreover, in case of a high mail volume, it can happen that letters lying on the tray are pushed off by the subsequent letters so that the conveyor belt can no longer be regulated so as to be adapted to the mail volume and an overload of the system can occur.

On page 2, line 22 please insert a heading as follows:

GENERAL DESCRIPTION OF THE INVENTION

The paragraphs beginning on page 2, line 23 have been changed as follows:

The invention ~~is based on the objective of creating~~ provides a method for separating letters in which even large, irregularly spaced and disordered piles of letters that are being transported on the conveyor belt are rendered reliably and in trouble-free serial operation into a continuous stream of letters that are largely not lying on top of each other and that are distributed virtually homogeneously over the conveyor belt.

~~This objective is achieved in the method according to the generic part of Claim 1 in that~~ According to the invention, at least one retention plate affixed at an axis of rotation in a radial orientation with respect thereto rotates around the axis of rotation that is arranged crosswise to the conveying direction of ~~the~~ a conveyor belt, horizontally and above the conveyor belt, in such a way that the retention plate situated below the axis of rotation has a speed component in a direction that is opposite to the conveying direction of the conveyor belt.

The paragraphs beginning on page 3, line 21 have been changed as follows:

The invention likewise ~~comprises~~ provides a device that is suitable for carrying out the method having an axis of rotation that is arranged crosswise to the conveying direction of a conveyor belt, horizontally and above the conveyor belt, and one or more retention plates that are affixed at the axis of rotation in a radial orientation with respect thereto and that rotate around said axis of rotation, whereby the rotating retention plates can be driven in such a way that, in at least one operating state of the device, they have a speed component that is opposite to the conveying direction of the conveyor belt whenever they are below the axis of rotation.

The axis of rotation and the retention plate are arranged ~~in the method according to the invention~~ in such a way that the letters fed onto the conveyor belt of the device accumulate in front of the retention plate whenever the axis of rotation is in a position in which the retention plate faces perpendicularly ~~downwards~~ downwardly, forming a right angle with the conveyor belt. This position of the axis of rotation and of the retention plate is to be designated here as the initial position so that reference can be made to this position hereinafter.

The paragraph beginning on page 5, line 8 has been changed as follows:

The efficiency of the method according to ~~of~~ the invention can be increased in that two or more retention plates are installed at the axis of rotation in a radial orientation with respect thereto, whereby an especially preferred embodiment of the invention is characterized in that the angular distances between the retention plates are the same.

The paragraphs beginning on page 5, line 23 have been changed as follows:

The frequency of the periodical ~~periodic~~ course resulting from the use of the method according to ~~of~~ the invention is increased in the embodiment with several plates at a rotational frequency that is the same as in the embodiment with only one plate, so that even a very high mail volume can be processed.

It is likewise especially advantageous for one or more of the retention plates to have a smaller radial extension than at least one other plate, as a result of which a gap remains between the conveyor belt and a retention plate having a smaller radial extension when this plate is positioned perpendicularly ~~downwards~~ downwardly on the conveyor belt, through which gap the letters can pass that are in the lower layer of the pile that has accumulated in front of the device.

The paragraphs beginning on page 7, line 4 have been changed as follows:

In a preferred embodiment, this first preceding ~~separation means~~ consists of separator has a hanging retention plate attached at an axis arranged above the conveyor belt crosswise to the conveying direction whose attachments allow it to swing back and forth and whose end piece is preferably configured so as to be elastic.

Here, the first separation device is configured in such a way that a pile of letters can pass it, whereby the letters present in the pile are then separated ~~by means of the method according to Claim 1.~~

On page 7, line 12 please insert a heading as follows:

BRIEF DESCRIPTION OF THE DRAWINGS

The paragraphs beginning on page 7, line 16 have been changed as follows:

Figure 1 shows a cross section through a device for separating letters having two retention plates as seen in the conveying direction;

Figure 2 shows a longitudinal section through this device as seen perpendicular to the conveying direction;

Figure 3 shows a cross section and a longitudinal section through the first separation device, which can precede the device shown in the other figures.

On page 8, before line 1 please add a heading as follows:

DETAILED DESCRIPTION

The paragraph beginning on page 8, line 10 has been changed as follows:

The device for separating letters that is affixed to the ~~conveying means~~ conveyor has a holding frame that spans the ~~conveying means~~ conveyor and that is attached to the lateral delineations 5 and 5' of the conveyor belt. The frame ~~consists of~~ includes a frame construction that is joined to the lateral delineations 5 and 5' so as to be fixed relative to the device and that has lateral tubes 6 and 6' positioned upwards upwardly perpendicular to the conveyor belt as well as a cross brace 7 by means of which a centered thread is driven downwards downwardly in the direction of the conveyor belt 1.

A screw 8 is inserted into the thread and ~~said~~ the screw 8 is centrally attached rotatably at its end facing the conveyor belt 1 to ~~the~~ a cross brace 9 of another movable part of the frame that is held in position by the screw 8.

The movable part of the frame likewise has lateral tubes 10 and 10' which are joined to the cross brace 9 at their upper ends facing away from the conveyor belt 1 and which surround the lateral tubes 6 and 6' of the part of the frame that is rigidly joined to the ~~conveying means~~ conveyor so that the lateral tubes 6 and 6' serve as a guide for the lateral tubes 10 and 10' of the movable part of the frame.

Receptacles 11 and 11' are attached at the lower ends of the lateral tubes 10 and 10' facing the conveyor belt 1, an axis of rotation 12 being rotatably supported on and attached at

said the receptacles 11 and 11' in such a way so as to span the conveyor belt parallel to the above-mentioned cross braces 7 and 9.

The paragraph beginning on page 9, line 18 has been changed as follows:

An end piece 16 made of an elastic material is attached to one of the retention plates 15 and, in the position of the axis of rotation 12 and of the retention plates 15 and 15' shown in Figures 1 and 2, said the end piece 16 should extend to near the conveyor belt 1 in order to be able to effectively carry out the method for separating letters according to the invention.

The paragraph beginning on page 10, line 11 has been changed as follows:

The employed V-belt 17, like the other described means elements, can of course be replaced by other means elements having the same effect. For example, it is possible to use a motor situated in the rotating roller rather than the V-belt or else a motor that is directly mounted from the outside – especially as a direct drive. The adjustability can be likewise achieved in this manner.